channel regions and said common conduction region and between said common conduction region and said relatively lightly doped major body portion is reduced.

**9**. A semiconductor device comprising:

a wafer of semiconductor material having first and second opposing semiconductor surfaces; said wafer of semiconductor material having a relatively lightly doped major body portion and being doped with impurities of one conductivity type;

the area of said wafer being divided into at least first and second spaced electrically isolated segments, said first segment including a power device and said second segment including at least one other device; the power device of said first wafer segment comprising:

at least first and second spaced base regions of the opposite conductivity type to said one conductivity type formed in said wafer and extending from said first semiconductor surface to a first depth beneath said first semiconductor surface; the space between said at least first and second base regions defining a common conduction region of one conductivity type at a given first semiconductor surface location;

first and second source regions of said one conductivity type formed in each of said at least first and second base regions respectively at first and second first surface locations to a depth less than said first depth; the outer rim of each of said first and second source regions being laterally spaced along said first semiconductor surface from the lateral outer periphery of its base region to define first and second channel regions along said first semiconductor surface between each of said first and second source regions, respectively, and said common conduction region;

source electrode means connected to said source regions;

gate insulation layer means on said first surface, disposed at least on said first and second channel regions;

gate electrode means on said gate insulation layer means and overlying said first and second channel regions;

a drain conductive region remote from said common region and separated therefrom by said relatively lightly doped major body portion;

a drain electrode coupled to said drain conductive region; and

at least said first base region being a cellular polygonal region; said cellular polygonal region being surrounded by said common conduction region; said first source region having the shape of an annular ring disposed within said cellular polygonal first base region.

**10**. The device of claim **9**, wherein said common conduction region is relatively highly doped compared to said relatively lightly doped major body portion and extends from said given first semiconductor surface location to a depth greater than the depth of said source region, but less than said first depth of said first and second spaced base regions, whereby resistance to current flow at the junctures between said first and second surface channel regions and said common conduction region and between said common conduction region and said relatively lightly doped major body portion is reduced.

**11**. The device of claim **9**, wherein each of said at least first and second spaced base regions of said opposite conductivity type has a respective profile which includes a relatively shallow depth region extending from said common conduction region and underlying a corresponding one of said first and second source regions and which includes a respective relatively deep, relatively large radius region extending from said relatively shallow depth region and which is laterally spaced from beneath said corresponding source region on the side of said source region that is away from said common conduction region.

**12**. The device of claim **11**, wherein said shallow base regions partially underline their respective source regions.

**13**. The device of claim **11**, wherein said common conduction region is relatively highly doped compared to said relatively lightly doped major body portion and extends from said given first semiconductor surface location to a depth greater than the depth of said source region but less than said first depth of said first and second base regions, whereby resistance to current flow at the junctures between said first and second surface channel regions and said common conduction region and between said common conduction region and said relatively lightly doped major body portion is reduced.

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